AMENDMENTS TO THE ABSTRACT

[SUMMARY]

[OBJECT]

An object of the present invention is to provide a technology to measure a flow rate more accurately by reducing an identification error when identifying the inner wall position from calculation result of flow velocity distribution in an ultrasonic flowmeter.

[ORGANIZATION]

An ultrasonic flowmeter includes the fluid velocity distribution measuring means comprising: a graph output means for outputting a flow velocity distribution graph displaying the flow velocity in two axes of positions in the inner diameter direction of the fluid pipe relating to the measuring line and fluid velocities corresponding to the inner diameter direction; and an inner wall position calculating means for calculating the position of the inner wall with respect to the axis in the inner diameter direction; in which the flow rate operation means measures the flow rate of a fluid to be measured by integral operation based on the inner wall position calculated by the inner wall position calculating means.

ABSTRACT OF THE DISCLOSURE

[SELECTED DRAWING] FIG. 3

An ultrasonic flowmeter to measure a flow rate of a fluid including an ultrasonic transmitter for launching ultrasonic pulses into the fluid; a flow velocity distribution measuring unit for measuring flow velocity distribution of the fluid; and a flow rate operation unit for calculating a flow rate of the fluid based on the flow velocity distribution of the fluid, wherein the flow velocity distribution measuring unit includes a graph output unit for outputting a flow velocity distribution graph displaying the flow velocity distribution in two axes of positions in the inner diameter direction of the fluid pipe, and an inner wall position calculating unit for calculating the position of the inner wall with respect to the axis in the

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inner diameter direction by calculating its inflection point, and wherein the flow rate operation unit measures a flow rate of the fluid by an integral operation based on the inner wall position calculated by said inner wall position calculating unit.